

IN THE CLAIMS:

Please delete claims 1, 3-8, and 10-12 without disclaimer or prejudice. Please add new claims 13-32 as follows:

Claim 13. (New) An injection apparatus comprising:

a first chamber containing a medicine;

a plunger cooperating with said first chamber, said plunger having a first engaging member defined thereon;

a needle in fluid communication with said first chamber;

a coupling having a second engaging member defined in an inner periphery, said first and second engaging members being releasably engaged to one another; and

a first spring acting on said coupling to urge plunger in a first direction until said coupling contacts a surface, wherein said surface causes said second engaging member to move away from said plunger so that said first and second engaging members are released from one another.

Claim 14. (New) The injection apparatus as in claim 13, wherein said first chamber and said needle are movably disposed in a housing.

Claim 15. (New) The injection apparatus as in claim 14, further comprising a second spring for urging said first chamber and said needle in a second direction, said second spring being weaker than said first spring.

Claim 16. (New) The injection apparatus as in claim 15, wherein said second spring moves said first chamber and said needle in said second direction once said first and second engaging members are released from one another.

Claim 17. (New) The injection apparatus as in claim 14, further comprising a damper pad disposed between said housing and said first chamber so that an impact of said first chamber with said housing is dampened.

Claim 18. (New) An injection apparatus comprising:

a syringe assembly having a needle, a first chamber for holding a medicine, and a plunger operable to force said medicine from said first chamber through said needle;

a first engaging member being defined on said plunger;

a housing being disposed about said syringe assembly so that said syringe assembly is movable in said housing between a retracted position and an extended position, said housing concealing said needle in said retracted position, and said needle extending from said housing in said extended position;

a first spring for driving said syringe assembly from said retracted position to said extended position and for causing said plunger to drive said medicine through said needle;

a coupling being disposed between said first spring and said plunger, said coupling having a second engaging member, said coupling having a closed position and an open position, said first and second engaging members being engaged to one another when said coupling is in said closed position so that said plunger is driveably engaged with said first spring, and said first and second engaging members being disengaged from one another when said coupling is in said open position so that said plunger is disengaged from said first spring; and

a surface being defined in said housing for moving said coupling from said closed position to said open position after said plunger forces said medicine from said first chamber through said needle.

Claim 19. (New) The injection apparatus as in claim 18, wherein said surface slopes radially away from said plunger.

Claim 20. (New) The injection apparatus as in claim 18, wherein said first engaging member is a groove defined on said plunger and said second engaging member is a lip defined on said coupling.

Claim 21. (New) The injection apparatus as in claim 20, wherein said groove is circumferentially defined on said plunger and said lip is circumferentially defined on an inner face of said coupling.

Claim 22. (New) The injection apparatus as in claim 18, wherein said coupling further comprises a plurality of openable portions having said second engaging member thereon.

Claim 23. (New) The injection apparatus as in claim 22, wherein said first spring drives said plurality of openable portions over said surface to open said portions until said first and second engaging members disengage.

Claim 24. (New) The injection apparatus as in claim 18, further comprising a second spring for driving said syringe assembly from said extended position to said retracted position after said coupling is moved to open position.

Claim 25. (New) The injection apparatus as in claim 18, further comprising a damper pad disposed between said housing and said syringe assembly so that an impact of said syringe assembly with said housing when said syringe assembly reaches said extended position is dampened.

Claim 26. (New) The injection apparatus as in claim 18, further comprising means for releasably securing said syringe assembly in said retracted position.

Claim 27. (New) An injection apparatus comprising:

a housing;

a syringe assembly having a needle, a first chamber for holding a medicine, and a plunger operable to force said medicine from said first chamber through said needle, said syringe assembly being movably disposed in said housing so that said housing conceals said needle in a first position and said needle extends from said housing in a second position;

a first spring for driving said syringe assembly from said first position to said second position and for causing said plunger to drive said medicine through said needle;

a coupling being disposed between said first spring and said plunger, a first portion of said plunger being engaged with a second portion of said coupling when said coupling is in a closed position so that said plunger is driveably engaged with said first spring, said first and second portions being disengaged from one another when said coupling is in an open position so that said plunger is disengaged from said first spring; and

a surface being defined in said housing for moving said coupling from said closed position to said open position after said plunger forces said medicine from said first chamber.

Claim 28. (New) The injection apparatus as in claim 27, wherein said surface slopes radially away from said plunger.

Claim 29. (New) The injection apparatus as in claim 28, wherein said first portion is a groove defined on said plunger and said second portion is a lip defined on said coupling.

Claim 30. (New) The injection apparatus as in claim 27, further comprising a second spring for returning said syringe assembly to said first position after said coupling is moved to open position.

Claim 31. (New) The injection apparatus as in claim 27, further comprising a damper pad disposed between said housing and said syringe assembly so that an impact of said syringe assembly with said housing when said syringe assembly reaches said second position is dampened.

Claim 32. (New) The injection apparatus as in claim 27, further comprising means for releasably securing said syringe assembly in said first position.